

Turboloader



Gianni
Ferrari



M RANGE



H RANGE

Wheel loader, telescopic handler or skid steer loader? Turbo loader has it all!

- Turbo loader is a versatile machine that is ideal for the garden, for public maintenance work, agriculture, construction work, materials handling and any other industry where power and functionality in a compact package is a key factor.

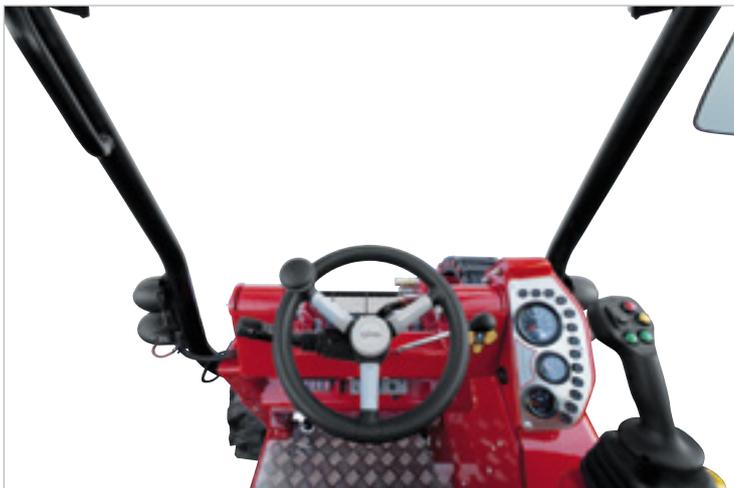


➤ Chassis

The articulated chassis gives a very tight turning radius, reducing the room needed for manoeuvring and enabling Turbo loader to move with confidence even in cramped spaces.

The articulated chassis and equal sized wheels ensure agile manoeuvring when used indoors or in building yards. Whatever gap the front half-frame goes through, the rear half-frame will follow.

The rear wheels always follow the same path of the front ones, minimising compaction of the ground. Its articulated steering means Turbo loader can work even on the most delicate surfaces without damage, making it ideal for landscaping and maintenance of green areas.



➤ Visibility

Unlike a traditional articulated loader, Turbo loader's operator position is located on the machine's front half-frame. Even when steering the machine, the operator always has a perfect view of the way ahead, the implement and the task being performed.

The elevated driving position offers excellent visibility, enhanced safety and superb comfort as well as improving control of the machine and its implements.

The side-mounted dashboard panel and the layout of the lifting boom rams also assist in providing an uncluttered view of the attachment.

- **Turbo loader has the manoeuvrability of a wheel loader**
- **Turbo loader offers the benefits of a telescopic handler**
- **Turbo loader has the compact dimensions of a skid steer loader ... and it's even more versatile!**

This is no compromise, it's a winning combination of great features!



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➤ **Telescopic boom**

Turbo loader's telescopic arm (not available on the MS 220) provides impressive horizontal and vertical reach.

The standard hydraulic parallel linkage makes materials handling faster, easier and safer. The self-levelling feature significantly reduces the amount of manual adjustments and loads are lifted in total safety.

By selecting the floating arm position, the implements will follow irregular surfaces smoothly and with ease.

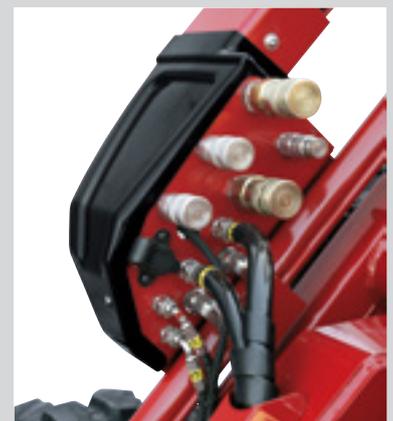
The simultaneous movement of the arm and bucket helps reduce cycle times and enhance productivity.

➤ **Quick connect**

Replacing the attachments is very quick and only takes a few seconds due to the quick connect system.

The implements are easily fitted and released from the operators seat by using an electronic joystick control that activates a pair of hydraulic latches.

The flat-face hydraulic couplings are very easy to clean and are ideal for use in dusty or dirty environments. They prevent fluid leaks and air pockets developing in the circuit during connection and disconnection. They also ensure superior performance due to reduced friction losses.



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M RANGE



H RANGE



- ▶ The M range of Turboloader is fitted with 3-cylinder 22 - 28 hp engines and, with an operating weight of 1,4 to 2 metric tons, it can handle loads of up to 1.100 kg. H range models have an operating weight from 1,9 to 2,3 metric tons and can handle loads of up to 1.400 kg. A 4-cylinder 36 hp engine equips the H360 model. The long wheelbase of the H range gives the machine exceptional stability and driving comfort. This exclusive configuration increases lifting capacity by over 25% compared to the M range, while maintaining the same very compact dimensions and the same manoeuvrability. The optimum weight distribution provides better pushing force delivery and therefore improved bucketing.



▶ Cab

Turboloader can be equipped with an optional heated cab. The 5 adjustable air vents ensure a uniformly distributed flow of air inside the cab, at both footrest and head level. The external thermal units are behind the cab so as not to increase the overall height of the machine. All the glazed surfaces are made of approved tempered glass.

The integral, one-piece

windscreen ensures optimum visibility without obstacles or distortions, while the rear windows provide the field of view required for manoeuvring.

The cab equipment includes two pairs of work lights (front and rear), the kit for road use (headlights, indicators, rotating beacon, horn and rear-view mirrors) and the front windscreen wiper. Inside the cab, the courtesy light, 12V electric socket (cigarette lighter receptacle) and amplified stereo speakers with connection for an MP3 player offer high levels of comfort. Air conditioning is available on request (optional).

▶ Driving position

Designed for intensive use, Turboloader offers superior ergonomics as standard. These include the electro-hydraulic servo-assisted joystick which is sensitive and accurate to use, or the comfortable Grammer seat with lumbar support and headrest, adjustable armrests and suspension (optional in heated version too).

The separate throttle and transmission controls allow for low speed manoeuvring whilst keeping the engine at high RPM, so that sufficient hydraulic power is available to operate attachments like the trencher, stone burier, snow thrower, etc.

The cruise control is ideal when working on uneven ground or at constant (even extremely low) speeds.



H 360

► Engine

Turboloader is equipped with low-emission engines that are fully compliant with the current anti-pollution directives. The radiator with anti-clog fin is generously proportioned and ensures high heat exchange even in unfavourable conditions, thus prolonging the life of the engine, the oil and the hydraulic components. On H models a practical hatch provides handy access to the engine compartment for easy checks and daily maintenance.



4WD

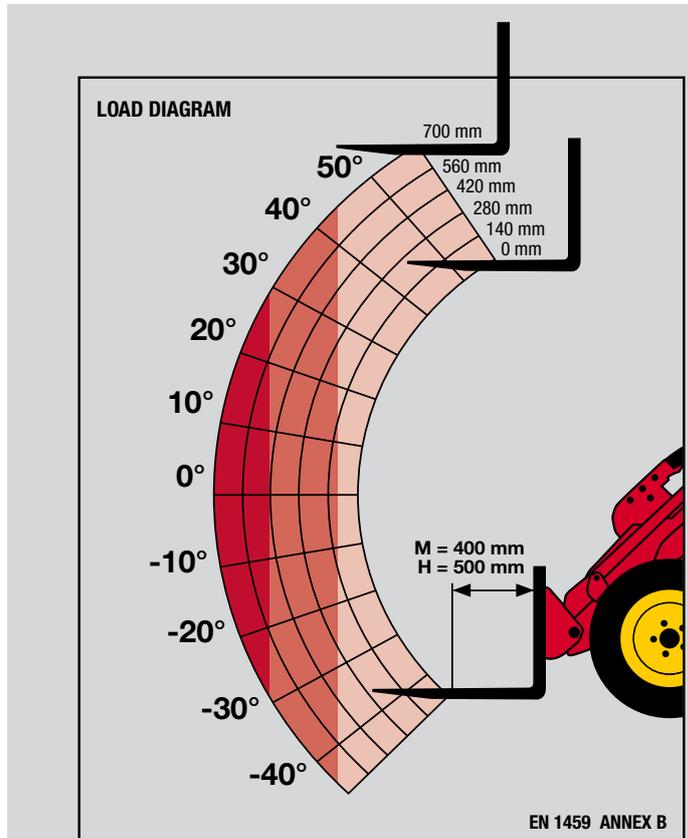
► Transmission

The permanent 4-wheel drive hydrostatic transmission uses high quality, robust, reliable components. The high specification of the components ensures ample pushing force together with a high transport speed, allowing for maximum productivity. Turboloader's standard equipment includes a useful anti-slip device which can help extricate the machine in low-grip situations. As an additional aid for difficult situations a flow divider can be activated which divides the hydraulic flow and obtain a differential locking effect (optional).



► Safety

Operator safety has been given the utmost priority. The ROPS frame is available in rigid 4-post version with see-through polycarbonate roof for a perfect view of the work when boom is raised. A foldable ROPS is also available as a variant which enables the Turboloader to be transported on limited height transports, to pass through reduced headroom openings and to be stored in environments with low ceilings. Turboloader is equipped with an overload prevention device and a load anti-spill device as standard. The first blocks the telescopic extension of the boom in the case of loss of grip at the rear wheels due to a possible excessive load. The load anti-spill device prevents the load accidentally spilling backwards on top of the operator.



M RANGE	270 kg	550 kg*	400 kg	720 kg*	640 kg	1100 kg*
H RANGE	400 kg	850 kg*	550 kg	1050 kg*	750 kg	1400 kg*

* with counterweights, PU filled tyres and cab

Attachments



Utility bucket

Width	115 cm	135 cm
Capacity (ISO 7546)	0,23 m ³	0,27 m ³
Weight	78 Kg	85 Kg
Tooth bar	optional	optional
Teeth	7	8



Multipurpose 4 in 1 bucket

Width	115 cm	135 cm
Capacity (ISO 7546)	0,26 m ³	0,31 m ³
Weight	152 Kg	164 Kg
Tooth bar	optional	optional
Teeth	7	8



High tip bucket

Width	115 cm	135 cm
Capacity (ISO 7546)	0,41 m ³	0,48 m ³
Weight	161 Kg	170 Kg
Max. tipping height	270 ¹ – 328 ² – 332 ³ cm	

¹ MS 220 – ² M 220 – ³ M 280/H 360



Light material bucket

Width	150 cm
Capacity (ISO 7546)	0,69 m ³
Weight	122 Kg



Pallet fork

Length	80 cm	115 cm
Fork carriage - Class	FEM 2A	FEM 2A
Load capacity	1000 Kg	1200 Kg
Weight	100 Kg	125 Kg



Bale fork

Vertically folding tines for safe transportation

Tines distance (centre-to-centre)	85 cm
Tines length	140 cm
Weight	95 Kg



Industrial type grapple fork

Width	110 cm	130 cm
Tines length	57 cm	57 cm
(Bolt-on replaceable) Tines	7	9
Weight	149 Kg	157 Kg



Manure fork

Width	125 cm
Tines length	52 cm
Tines	8
Weight	73 Kg



Snow thrower

Type	double stage
Working width	130 cm
Ejection pipe rotation	hydraulic
Deflector chute inclination	electric
Cutting edge	bolt-on replaceable



Spreader

Capacity	110 – 170 L
Spreading width	0,8 ÷ 6 m
Power supply	12 V



Snow blade

Optional rubber or steel cutting edge

Overall width	150 cm	175 cm
Mouldboard	straight	flared
Mouldboard height	55 cm	63 cm (at centre), 70 cm (at ends)
Angling	hydraulic, ± 30°	hydraulic, ± 35°
Cylinders	1	2
Trip springs	3	4



Roller-compactor

Can be filled with water for 100 kg additional weight

Working width	130 cm
Roller diameter	35 cm
Weight	225 kg



Leveller

Width	150 cm
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Extension boom

Length	110 cm
Weight	42 Kg



Stump grinder

Grinding wheel diameter	500 mm
Teeth	9
Sweep	hydraulic



Telescopic extension boom

Min. boom length (retracted)	130 cm
Max. boom length (extended)	200 cm
Extension	hydraulic
Weight	70 Kg



Trencher

Max. digging depth	80 cm
Digging width	14 cm
Trench cleaner	included
Cup teeth for regular soil	standard
Bits for stony ground	optional



Auger

Regular or rocky soil boring head as option

Hexagonal drive shaft	50 mm
Auger drill diameter (range)	100 ÷ 450 mm
Auger drill length	100 cm
Extension shafts	optional



Side discharge + mulching mower deck

Conversion kit included

Cutting width	150 cm
Blades	3
Cutting height adjustment	SA™ rapid adjustment 2,5 ÷ 7 cm



Flail mower

Cutting width	120 cm	150 cm
Blade reel	56 flails (28 pairs)	100 flails (50 pairs)
Cutting height adjustment	2 ÷ 9 cm	2 ÷ 9 cm



1-side hedgecutter

Can be configured to work on left side or right side

Cutterbar length	150 cm
Tilt adjustment	hydraulic
Tilt angle	120° (+15° up ; -105° down)
Max. cutting height vertical bar	345 ¹ – 403 ² – 407 ³ cm
Max. cutting height horizontal bar	350 ¹ – 408 ² – 412 ³ cm
Side shift	manual, 58 cm
Max. side reach vertical bar	130 cm, from machine centre
Max. side reach horizontal bar	272 cm, from machine centre

¹ MS 220 – ² M 220 – ³ M 280/H 360



2-side reach arm hedgecutter

Cuts both right and left sides as standard

Cutterbar length	150 cm
Controls	hydraulic
Operating angle	360°
Max. cutting height vertical bar	648 ¹ – 706 ² – 710 ³ cm
Max. cutting height horizontal bar	526 ¹ – 584 ² – 588 ³ cm
Max. side reach vertical bar	240 cm, from machine centre
Max. side reach horizontal bar	355 cm, from machine centre

¹ MS 220 – ² M 220 – ³ M 280/H 360



Stone burier

Working width	125 cm
Max. working depth	15 cm
Hoes	24
Roller width	145 cm



Rotary tiller

Working width	130 cm
Max. working depth	25 cm
Hoes	24



Front hoe

Max. digging depth	2,3 m
Swing arc	170 °
Bucket width	40 cm
Bucket capacity (ISO 7451)	0,036 m³
Breakout force at the tooth	2.200 Kg
Stabilizer width	130 cm
Stabilizer bars	hydraulic
Side shift	hydraulic lock



Swing dipper arm

Max. digging depth	1,5 m
Swing arc	170°
Bucket width	30 cm
Bucket capacity (ISO 7451)	0,025 m³
Breakout force at the tooth	2.200 Kg

➤ Turboloader is a versatile, compact, agile and powerful machine. **Turboloader: don't call it just "loader" ...**



Big bag lifter

Load capacity	1000 kg
Lift hook height	110 cm
Width	120 cm
Weight	80 kg



Shredder

Shredding capacity	90 mm
Disc cutters	8 hammers + 2 knives
Feed hopper opening	700 x 570 mm
Discharge	270° adjustable
Feed system	hydraulic feed roller (NOSTRESS electronic power control as option)
Weight	230 kg



Grabbing tool

Maximum jaw opening	65 cm
Jaw length	56 cm
Overall length	76 cm
Max lifting weight	850 kg
Weight	102 kg



Hydraulic hammer

Withmoil and chisel tools

Weight	95 kg
Tool diameter	45 mm
Impact energy	240 J
Impact frequency	1200 BPM
Asphalt cutter tool	available
Stake driver tool	available

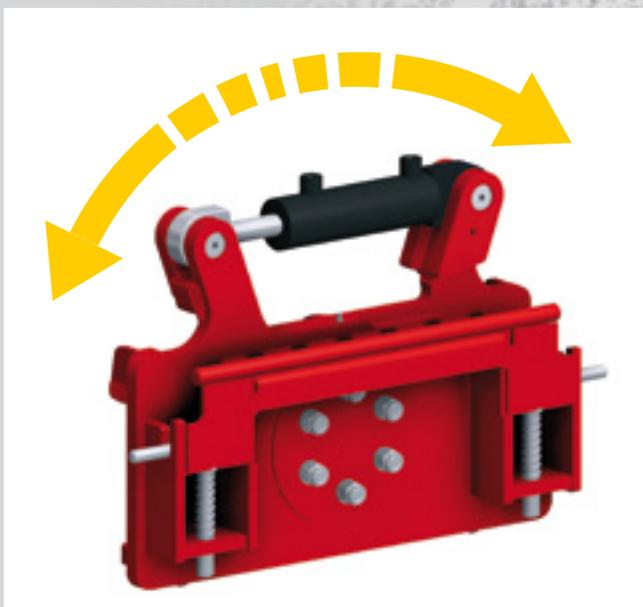
NEW 2015



Pallet fork with Extra-Lift

It allows to reach up to 30 cm higher

Lifting (Extra-Lift)	30 cm
Fork length	115 cm
Fork carriage - Class	FEM 2A
Load capacity	1200 kg
Weight	200 kg



Tilt attach plate

It allows to tilt attachments up to 13 degrees left and right

Tilting	hydraulic, $\pm 13^\circ$
Depth	120 mm
Weight	75 kg

Advanced Groundcare Solutions™



TECHNICAL SPECIFICATIONS

	MS 220	M 220	M 280	H 360	H 440
Model					
Engine					
Fuel	Diesel	Diesel	Diesel	Diesel	Diesel
Model	Kubota D902	Kubota D902	Kubota D1105	Kubota V1505	Kubota V1505-T
Power / Displacement	22 hp / 898 cc.	22 hp / 898 cc.	28 hp / 1123 cc.	36 hp / 1498 cc.	44 hp / 1498 cc.
No. Cylinders / Cooling	3 / Liquid	3 / Liquid	3 / Liquid	4 / Liquid	4 / Liquid
Fuel tank capacity	24 L	24 L	24 L	24 L	24 L
Transmission					
Type	Hydrostatic closed loop system with variable displacement piston pump and orbital motors				
Piston pump / orbital motors	Poclain / Sauer-Danfoss		Sauer-Danfoss / Sauer-Danfoss		
Driving wheels	4WD	4WD	4WD	4WD	4WD
Pushing force	9.000 N	9.000 N	11.200 N	11.200 N	11.200 N
Traction control	Anti-slip selector switch circuit (standard) - Differential lock through hydraulic flow divider (optional)				
Forward / reverse motion	2 pedals (forward foot pedal + reverse foot pedal)				
Maximum speed	12 km/h	12 km/h	12 km/h	12 km/h	20 km/h
Parking brake	Mechanical		Hydraulic negative action multi-disc brakes in oil bath		
Steering system	Articulated chassis, with power steering wheel				
Wheels/Tyres					
Industrial type (standard) / Turf type (optional) / Agricultural type (optional)	23x8.50-12	23x8.50-12	26x12.00-12	26x12.00-12	26x12.00-12
Puncture proof infilling	optional	optional	optional	optional	optional
Lift boom					
Telescopic arm	—	•	•	•	•
Maximum lifting height (at pin)	246 cm	304 cm	308 cm	308 cm	308 cm
Maximum overhang (at mounting plate)	54 cm	124 cm	120 cm	120 cm	120 cm
Breakout force (at 50 cm from mounting plate)	1.420 kg	1.420 kg	1.420 kg	1.420 kg	1.420 kg
Hydraulic lifting capacity (at pin) *	2.100 kg	2.100 kg	2.100 kg	2.100 kg	2.100 kg
Self-levelling system	Hydraulic parallelogram as standard				
Floating position	•	•	•	•	•
Mounting plate	Quick connect & release system controlled from the driver's seat				
Hydraulic system					
Type	Open loop with 2 gear pumps				
Gear pumps	Sauer-Danfoss	Sauer-Danfoss	Sauer-Danfoss	Sauer-Danfoss	Sauer-Danfoss
Oil flow	61 (36+25) L/min	61 (36+25) L/min	66 (24+42) L/min	66 (24+42) L/min	66 (24+42) L/min
Maximum pressure	200 bar	200 bar	200 bar	200 bar	200 bar
Oil tank capacity	24 L	24 L	24 L	44 L	44 L
Hydraulic controls	12 function electro-hydraulic proportional and servo-controlled joystick				
Front hydraulic outlets					
PTO auxiliary hydraulics (High Flow)	3 flat-face quick-release couplings, 3/4" inlet and outlet, 3/8" drainage				
Secondary auxiliary hydraulics	2 flat-face quick-release couplings 3/8"				
Rear hydraulic outlets (optional)					
Auxiliary hydraulics	2 flat-face quick-release couplings 3/8"				
Electrical system					
Battery	12 V / 70 Ah – battery master switch as standard				
Alternator	40 A	40 A	40 A	40 A	60 A
Electrical outlet	12 V DC socket on lift boom, for electric controls and actuators power				
Optional	Front and rear work lights – Road legal light kit with rotating beacon				
Safety devices					
Safety sensors	EEC European Standard / ISO – Load anti-spill sensor device – Machine anti-overturning sensor device				
ROPS (version)	4-post, rigid, with transparent polycarbonate roof				
ROPS (version)	2-post, foldable				
Cab (optional)					
Cab features	Ventilation and heating system – On-road use equipment – 2 front and 2 rear work lights – front wiper – courtesy light – 12 V socket (cigarette lighter receptacle) – stereo speakers with connection for an MP3 player. Air conditioning (optional)				
Weight and measures (with rigid 4-post ROPS)					
Unloaded weight	1.190 kg	1.360 kg	1.440 kg	1.670 kg	1.730 kg
Length / Width / Height	255 x 111 x 207 cm	255 x 111 x 207 cm	255 x 126 x 211 cm	255 x 126 x 211 cm	255 x 126 x 211 cm

* for the operative load capacity refer to the load diagram

The availability of models, versions and trim may vary depending on the country.

